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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,615	10/23/2003	Hideya Takakura	0951-0127P	5919
2292 7590 02/26/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER IM, JUNGHWA M	
			ART UNIT	PAPER NUMBER
			2811	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		02/26/2007	ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

Application No.

10/690,615

Applicant(s)

TAKAKURA, HIDEYA

Examiner

Junghwa M. Im

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/25/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bottini (US 3727064) in view of Kudo et al. (US 5031024), hereinafter Kudo, Takada et al. (US 5224021), hereinafter Takada.

Regarding claims 1 and 5-6, Fig. 5 of Bottini shows opto-isolators having a leadframe (1) to mount a semiconductor device, which comprises a plurality of parallel first and second leads/inner and outer leads (4, 5, 6), first leads/inner leads and second leads/outer leads having a different pitch, and first leads are joined end-to-end with the second leads.

Fig. 5 of Bottini fails to show that the first leads corresponds to a pitch of terminals of a surface mount-type electronic device and the pitch of the second leads corresponds to a pitch of terminals of a through hole mount-type electronic device. Kudo discloses a leadframe with different pitches, 1.27 mm and 2.54 mm. And Takada discloses that a pitch of 1.27 mm is used for SOP (surface mounted package) and a pitch of 2.54 mm is used for DIP (through hole mounting package).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teachings of Kudo and Takada into the device of Bottini in order to

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have the first and the second leads to have the different pitches of 1.27 mm and 2.54 mm to accommodate the SOP and DIP packaging.

Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bottini (US 3727064) in view of Kudo et al. (US 5031024), hereinafter Kudo, Takada et al. (US 5224021), hereinafter Takada and Kazutaka (US 5691241).

Regarding claims 12-17, Fig. 5 of Bottini shows opto-isolators having a leadframe (1) to mount a semiconductor device, which comprises a plurality of parallel first and second leads/inner and outer leads (4, 5, 6), the first and the second leads each having a first and a second width, a first and a second width, and a first and a second thickness in a direction normal to the plane wherein the first and the second leads are arranged, first leads/inner leads and second leads/outer leads having a different pitch, and first leads are joined end-to-end with the second leads.

Fig. 5 of Bottini fails to show that the first leads corresponds to a pitch of terminals of a surface mount-type electronic device and the pitch of the second leads corresponds to a pitch of terminals of a through hole mount-type electronic device. Kudo discloses a leadframe with different pitches, 1.27 mm and 2.54 mm. And Takada discloses that a pitch of 1.27 mm is used for SOP (surface mounted package) and a pitch of 2.54 mm is used for DIP (through hole mounting package).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teachings of Kudo and Takada into the device of Bottini in order to

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have the first and the second leads to have the different pitches of 1.27 mm and 2.54 mm to accommodate the SOP and DIP packaging.

The combination of Bottini/Kudo/Tanaka would result in a device having a leadframe for SOP and DIP, however, does not explicitly show that the first thickness (a thickness for SOP) is less than the second thickness (a thickness for DIP). Katutaka discloses that a thickness for SOP is less than a thickness for DIP.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teachings of Katutaka into the device of Bottini/Kudo/Tanaka in order to have the first thickness less than the second thickness to meet the industry standard.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bottini in view of Kudo and Tanaka as applied to claim 1 above, and further in view of Katutaka.

Regarding claim 2, the combination of Bottini/Kudo/Tanaka would result in a device having a leadframe for SOP and DIP, however, does not explicitly show that the first thickness (a thickness for SOP) is less than the second thickness (a thickness for DIP). Katutaka discloses that a thickness for SOP is less than a thickness for DIP.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teachings of Katutaka into the device of Bottini/Kudo/Tanaka in order to have the first thickness less than the second thickness to meet the industry standard.

### ***Conclusion***

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Applicant's amendment filed August 28, 2006 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Junghwa M. Im whose telephone number is (571) 272-1655. The examiner can normally be reached on MON.-FRI. 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard T. Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jmi

  
Sara Crane  
Primary Examiner